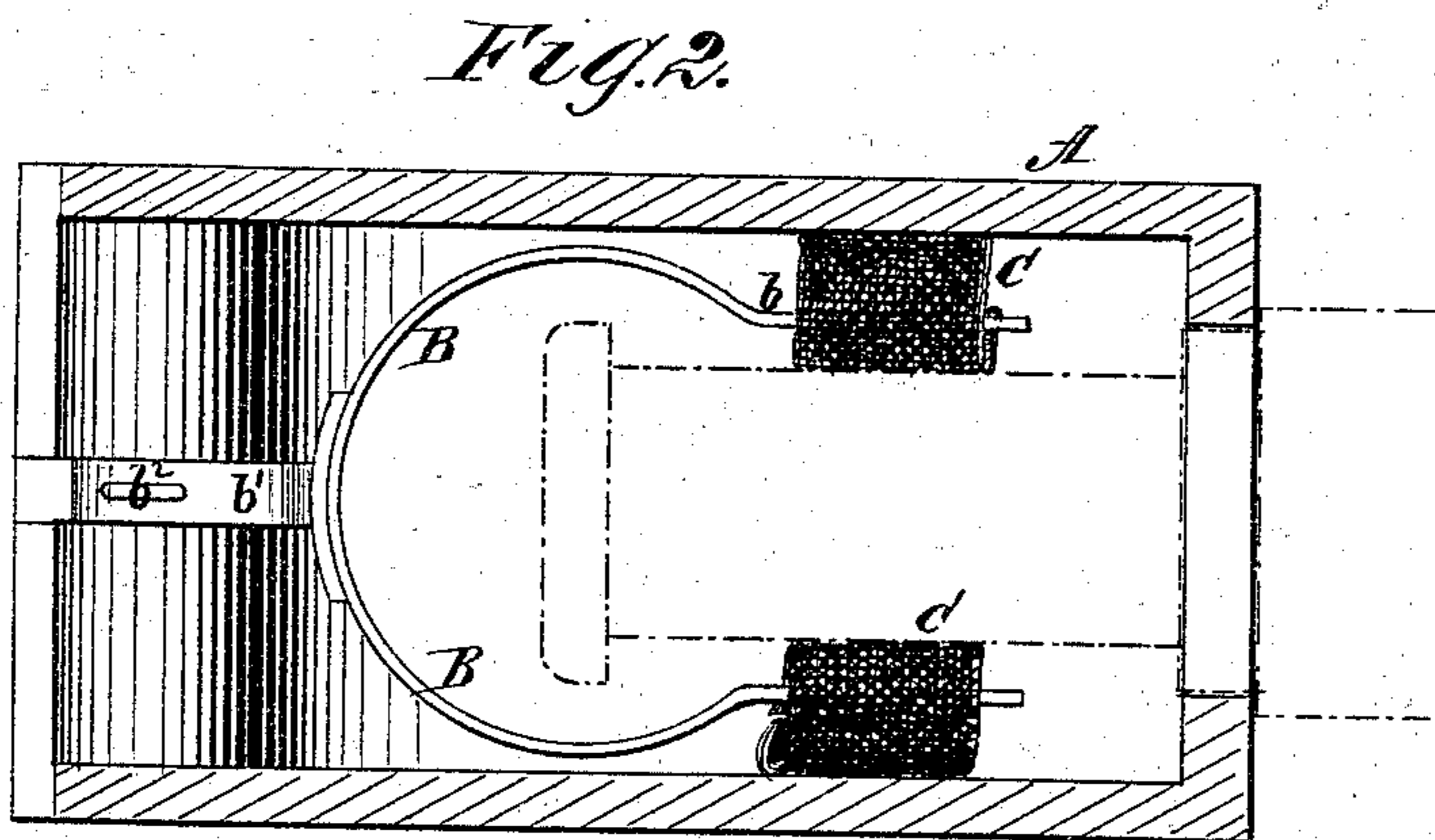
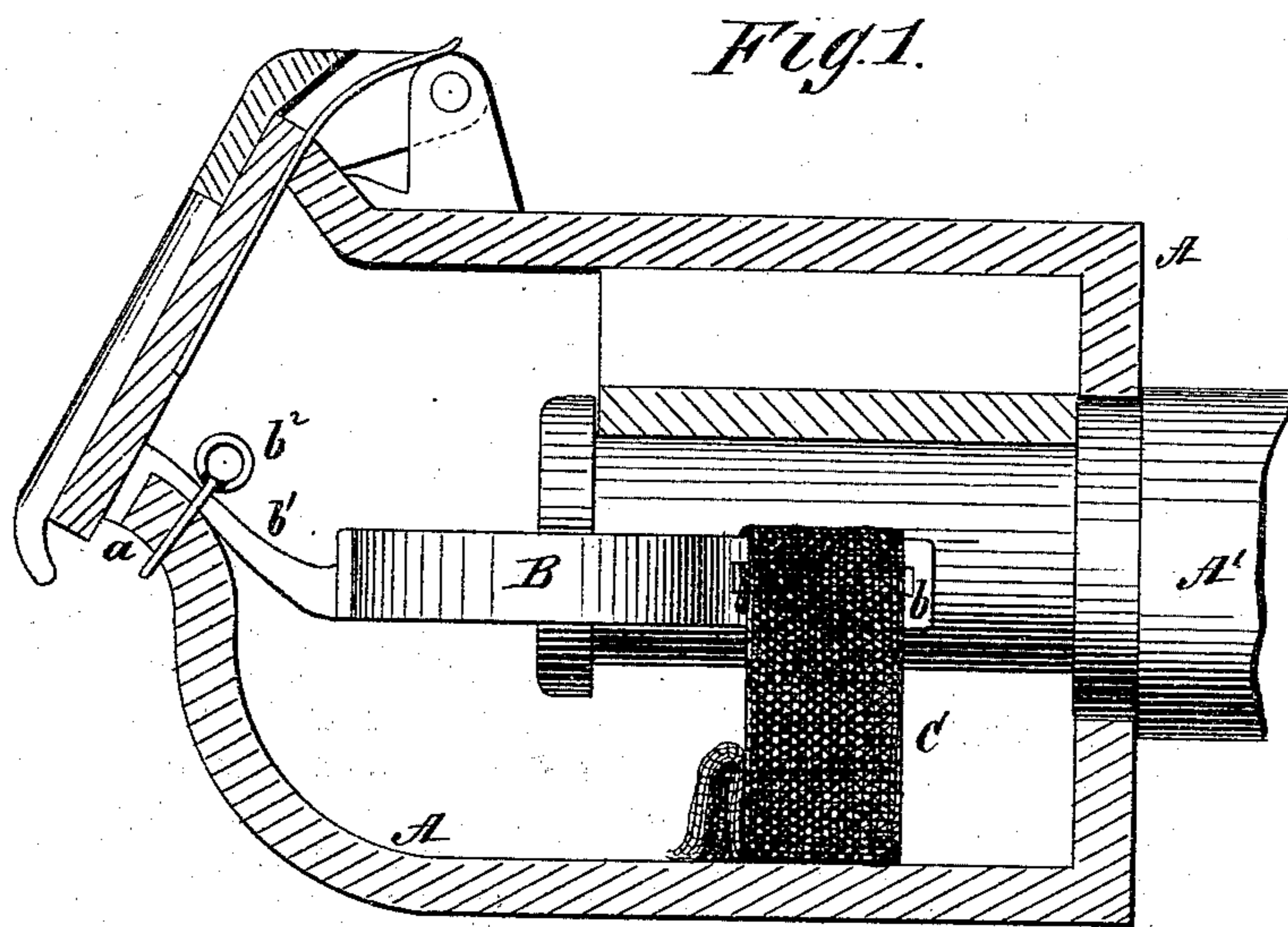


J. W. BOLLMAN & J. G. ERNST.

Car-Axle Lubricators.

No. 153,803.

Patented Aug. 4, 1874.



WITNESSES:

G. Mathey.
John C. Kemmer

INVENTOR:

J. W. Bollman
J. G. Ernst
BY *Wm. F. B.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN W. BOLLMAN AND JOHN G. ERNST, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CAR-AXLE LUBRICATORS.

Specification forming part of Letters Patent No. **153,803**, dated August 4, 1874; application filed June 22, 1874.

To all whom it may concern:

Be it known that we, JOHN W. BOLLMAN and JOHN G. ERNST, of Baltimore city and State of Maryland, have invented a new and Improved Car-Axle Lubricator; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a longitudinal sectional elevation, and Fig. 2 a horizontal section.

The invention relates to a novel and economical mode of applying lubricants to car-axles; and consists in using a spring, one or both of whose ends clasp a side or sides of the journal, while on the inner side of each of these ends is attached the end of a wick which is saturated with lubricant, or has part of its length resting in the said lubricant.

A represents an axle or journal box, in which is placed the lubricant, and A', a journal of the car-axle. A packing is usually saturated with oil and comes in contact with axle, necessitating frequent removal and consequent expense. B represents, preferably, a bow-spring, bent a little outward at the ends *b*, so as to be parallel with journal, and provided at its middle with a hook, *b*¹. The latter, being made to embrace the outer edge *a* of axle-box, may then be secured by a pin, *b*², passing therethrough. A wick, C, is carried through each of the slots *b*, and caused to abut yieldingly against the journal, the lubricant being thus supplied, by capillary attraction, as fast as it is needed. The slots in the ends of spring

enable us to shift the rubbing-surface of the wicks, by drawing the latter more or less through, while the rear hook is believed to be the simplest and most convenient way of attaching the spring in the axle-box. The wicks should be sufficient to absorb the oil, to prevent it from slopping over.

The car-axle lubricator can be applied to any boxes while on car, irrespective of their form or construction, quickly and at small expense. Other lubricators require new car-boxes to suit their construction, thereby putting railway companies who adopt the same to great expense and inconvenience. Besides its economy and great saving in oil, the lubricator is conveniently handled, requiring no skill whatever to take it out of the car-box for examination or to replace and adjust it. Any motion or jar of an axle-journal lubricated by our device cannot be communicated to the oil in the bottom of the axle-box; consequently frothing or churning of the oil is prevented. The wicks ought to be sufficiently long to fill the bottom of the axle-box well, to absorb the oil so that it cannot slop over.

Having thus described our invention, what we claim as new is—

The combination, in a car-axle lubricator, of the bow-spring B, having slot B and hooks *b*¹, with the wick C, as and for the purpose specified.

JOHN W. BOLLMAN.
JOHN G. ERNST.

Witnesses:

J. A. HENRY,
C. E. McCLENAHAN.